



Photograph taken by Melissa Blankenship, USEPA. At this preparation plant, the raw, impure coal is processed through a Baum jig. The jigging process is one of stratification according to the relative density, size, and shape of the incoming materials.



Photograph taken by Dan Osterfeld, Ohio EPA. The cleaned coal travels down the axis of the cyclone and is discharged to the next stage of the process.



Photo taken by Dan Osterfeld, Ohio EPA. Spiral concentrators are part of the fine coal circuit and separate out particles by gravitation, based on density and size.



Photograph taken by Melissa Blankenship, EPA. Froth flotation is part of the fine refuse circuit and an important part of the coal beneficiation process at this plant. Froth flotation is basically a process for selectively separating hydrophobic materials from hydrophilic materials.



Photograph taken by Dan Osterfeld, Ohio EPA. Thickeners are used for dewatering slurry. A thickener is a large circular tank that is used to settle out the solid material from the water in the slurry prior to sending to the slurry impoundment. The separated water is clarified and reused as process water in the preparation plant. Flocculants are usually added to the slurry before it is sent to the thickener.



Photograph taken by Dan Osterfeld, Ohio EPA. Slurry Impoundment